National Aeronautics and Space Administration

HISTORICALLY BLACK COLLEGES AND UNIVERSITIES

NASA TECHNOLOGY INFUSION

ROAD TOUR

AND MINORITY-SERVING INSTITUTIONS

New York City College of Technology/CUNY

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www.nasa.gov

OVERVIEW

- New York City College of Technology “City Tech” is the designated senior college of technology within the 24-unit City University of New York (CUNY) system, the largest urban public university system in the nation serving 250,000 students. The college plays an important role nationally in the education of future scientists, engineers, technologists, and mathematicians. A federally designated Hispanic Serving Institution (HSI) and Minority Serving Institution (MSI), City Tech is one of the second most diverse institutions of higher education in the northeast (US News & World Report, 2014). Fall Semester 2014 student enrollment was 17,374. Thirty-one percent (31%) of students self-identified as Black (non-Hispanic), 35.6% as Hispanic, 20.6 % as Asian/Pacific Islander, 11.1% as White, 0.5% as Native American, and 1.2% as Other. Eighty percent (80%) of incoming first-year students and 67% of returning students received need-based financial aid. The National Science Foundation ranked City Tech 16th in the production of Asian/Pacific Islander (S&E)1, degree recipients, 23rd in the production of male S&E degree recipients, and 48th in the production of women S&E degree recipients. This document is only relevant to *The Department of Mechanical Engineering Technology.*

RESEARCH CAPABILITIES

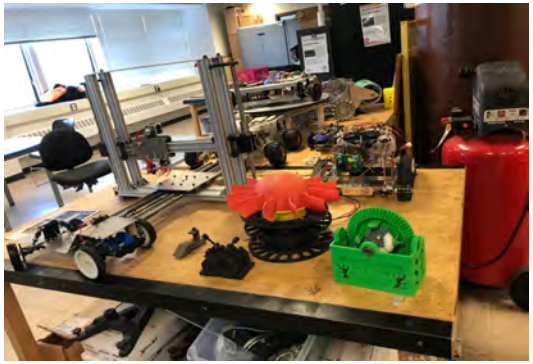
- ***Biomedical Research***: Design and manufacturing of medical devices using different technologies that include CNC and 3D printing.

- ***Engineering:*** Manufacturing, engineering design materials testing, composite materials, and mechatronics

FACILITIES

- **Mechatronics Technology Center (V508, V511)**
- The Mechatronics Technology Center (MTC) was established in the fall of 2010 funded by a grant from the NSF-ATE. The MTC provides a unique platform for faculties and students to engage in hands-on multidisciplinary design work. Two rapid prototyping equipment do exist within the lab
- **Materials Testing & Engineering Materials Laboratory (Room V110, 1612 square feet)**
- **CNC Machining Center (V107, 987 square feet)**
- The CNC Machining Center located in room V107 is used for MECH 1101, Manufacturing Processes, MECH 1201 Computer Aided Manufacturing Systems as well as some other design and manufacturing courses. The department was able to complement the CNC milling center with a new CNC lathe through the Department of Labor (DOL) grant.
- ***CAD/CAE/CAM Laboratories (Room V511A, V507A, V507, V508 and V509)***
- The department has five CAD/CAE/CAM Laboratories. Each of these laboratories has twenty PCs and a printer. Each PC has all the CAD/CAE/CAM software packages such as AutoCAD, Matlab, Autodesk Inventor, Creo, Solidworks, and MasterCAM, ADINA, MIMICS and Labview
- **Basic Manufacturing Laboratory (Room V502, 3324 square feet)**
- The following main equipment is housed in this lab: various types of conventional lathes, mills, grinders, drill presses, cut-off or band saws, and several surface plates and other measuring equipment. This lab is used to machine and fabricate various projects related to several courses and extracurricular activities
- **Rapid Prototyping Laboratory - (V508, 2339 square feet)**
- The rapid prototyping laboratory is equipped with one Dimension 3D Printer and one Fortus 400mcl 3D Prototyping Printer.
- **Center for Medical Devices and Additive Manufacturing (V508)**
- Equipped with latest technologies CNC (2 CNC machines from Tormach and Roland Inc). Different 3D printers utilizing wide spectrum of materials including: ABS, PLA, Kevlar, Fiberglass, Carbon Fiber, PEEK, Nylon, and many others. The center is supported by NASA and NSF funding.

Facilities



Mechanical Engineering Technology Programs:

- Mechanical Engineering Technology/BTech (Bachelors)
- Mechanical Engineering Technology/AAS
- Industrial Design Technology/AAS

Current and Past Funding

- NASA CIPAIR
- NASA MOO
- NSF - ATE
- NSF – ATEP